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EXAMINER	
KWIECINSKI, RYAN D	

ART UNIT	PAPER NUMBER
3635	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/770,251	HALLIDAY, MICHAEL J.	
	Examiner	Art Unit	
	Ryan D. Kwiecinski	3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/20/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities:

Page 10, line 8: "angel" should be –angle--.

Appropriate correction is required.

On Page 7 of the specification, applicant states that the "dome (20) is preferably made of an opaque or translucent structural material". The word opaque has the meaning of impervious to the passage of light, which would eliminate the purpose of the skylight.

Claim 14 is objected to because of the following informalities:

It appears claim 14 should be dependent upon claim 13.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4,7,20, and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrases "completely diffused" and "complete diffusion" are used in these claims and a proper explanation of these phrases is not included in the specification. These phrases cause the claims to be unclear and indefinite.

Claim 14 recites the limitation "said notch system" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,2,6,7,9, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Publication No. US 2003/0079422 A1 to Bracale.

Claim 1:

Bracale teaches a skylight system comprising:

a tapered light tube (2, Fig.1) comprising a top and a bottom;

said tapered light tube wider at said top than at said bottom (Fig.1).

Claim 2:

Bracale teaches the skylight system of claim 1 (above) further comprising a dome (4, Fig.1) at said top.

Claim 6:

Bracale teaches the skylight system of claim 1 (above) further comprising a diffuser (30, Fig.5) at said bottom.

Claim 7:

Bracale teaches the skylight system of claim 6 (above) wherein said diffuser comprises complete diffusion (Page 2, paragraph 37, lines 1-2) on its interior.

Claim 9:

Bracale teaches the skylight system of claim 1 (above) comprising said tapered light tube (2, Fig.1), a top dome (4, Fig.1) disposed at a top of said tapered light tube, and a bottom diffuser (30, Fig.5) disposed at a bottom of said tapered light tube.

Claim 16:

Bracale teaches the skylight system of claim 1 (above) wherein said light tube further comprises a reflective interior (Page 1, paragraph 18, line 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3,4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Publication No. US 2003/0079422 A1 to Bracale in view of USPN 5,983,581 to DeBlock et al.

Claim 3,4,5

Bracale teaches the skylight system of claim 2 (above), Bracale does not teach wherein said dome comprises a diffused dome per claim 3, wherein said dome comprises a completely diffused dome on its interior per claim 4, or wherein said diffused dome comprises a prismatic diffuser per claim 5. DeBlock et al. does teach however wherein said dome comprises a diffused dome (Column 4, lines 25-35) per claim 3, wherein said dome comprises a completely diffused dome on its interior (Column 4, lines 25-35) per claim 4, or wherein said diffused dome comprises a prismatic diffuser (Column 3, lines 38-39) per claim 5.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have created a top dome out of a material that would cause the dome to completely diffuse light into the tube,

directing the light down the tube. It would also be obvious to include a prismatic diffuser, which scatters the light into the tube at angles causing the light to continue down the light tube. Using a diffuser is an idea well known in the art of skylights and lights in general; therefore substituting the transparent top dome with a translucent/prismatic top dome would have been obvious to enhance the light collecting characteristics.

Claims 8,10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Publication No. US 2003/0079422 A1 to Bracale in view of Publication No. US 2003/0066254 A1 to DeBlock.

Claim 8:

Bracale teaches the skylight system of claim 6 (above); Bracale does not teach wherein said bottom diffuser comprises a prismatic diffuser. Deblock teaches wherein said bottom diffuser comprises a prismatic diffuser (Page 1, paragraph 16, line 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted the bottom diffuser with a prismatic diffuser to better enhance the scattering of the light into the room into which the skylight directs the sunlight. Prismatic diffusers are very well known in the art and would have been an obvious application in Bracale's skylight system.

Claim 10:

Bracale and DeBlock teach the skylight system of claim 8 (above). DeBlock also teaches wherein said tapered light tube is sealed to said top dome (Page 1, paragraph 18, lines 1-4), but does not teach said light tube is sealed to said bottom diffuser, resulting in a completely sealed skylight system.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have sealed the skylight system on both ends where the openings exist in order to keep out bugs and/or dust.

Claim 11:

Bracale and DeBlock teach the skylight system of claim 8 (above), but they do not directly teach wherein each of said dome, said tapered tube, and said bottom diffuser are stackable during shipping and storage with other similar components. However, Bracale's dome, tapered tube, and bottom diffuser are clearly capable of being stacked.

Bracale's top dome is a hemispherical dome so it can obviously be stacked. Bracale's system has a tapered tube, so it as well can obviously be stacked. Bracale's bottom diffuser is either flat or hemispherical which can obviously be stacked. The shape of the skylight system is merely a design choice. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have created a design of a

skylight which had parts that were able to be stacked during shipping or storage.

Claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Publication No. US 2003/0079422 A1 to Bracale in view of USPN 5,596,848 to Lynch.

Claims 12, 15:

Bracale teaches the skylight system of claim 2 (above), but he does not teach wherein said top dome comprises a notch system and said tapered light tube is disposed within said notch system per claim 12 or wherein the notch system further comprises a gasket per claim 15. Lynch teaches wherein said top dome comprises a notch system (30,37, Fig.4) and said tapered light tube is disposed within said notch system per claim 12 or wherein the notch system further comprises a gasket (36, Fig.6) per claim 15.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a notch system on the bottom of the dome, which mates with the top of the tapered tube and creates a more secure connection and seal between the two. It is also obvious to include a gasket in this notch system to seal the opening between the dome and the tube. The use of mating edges, such as a notch and a lip, as well as gasket to seal the mating edges are two extremely well known practices.

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Publication No. US 2003/0079422 A1 to Bracale in view of USPN 5,896,713 to Chao et al.

Claim 13,14:

Bracale teaches the skylight system of claim 6 (above), but he does not teach wherein said bottom diffuser comprises a notch system and said tapered light tube is disposed within said notch system per claim 13 or wherein the notch system further comprises a gasket per claim 14. Chao et al. teaches wherein said top dome comprises a notch system (26, Fig.5) and said tapered light tube is disposed within said notch system per claim 13 or wherein the notch system further comprises a gasket (94, Fig.5) per claim 14.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a notch system on the top of the bottom diffuser, which mates with the bottom of the tapered tube and creates a more secure connection and seal between the two. It is also obvious to include a gasket in this notch system to seal the opening between the bottom diffuser and the tube. The use of mating edges, such as a notch and a lip, as well as gasket to seal the mating edges are two extremely well known practices.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Publication No. US 2003/0079422 A1 to Bracale in view of USPN 6,604,329 B2 to Hoy et al.

Claim 17:

Bracale teaches the skylight system of claim 1 (above), Bracale does not teach wherein a back of said top of said light tube is higher than a front of said top of said light tube. Hoy et al. teaches wherein a back of said top of said light tube is higher than a front of said top of said light tube (Fig.1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have created a light tube in which the back of the tube is higher than the front of the tube causing the tube to form to the shape of a slant roof. Also a slant tube is known to collect more light at a desired angle to direct the light down the tube. The idea of the shape of the tube is well known and is merely a design choice.

Claims 18,22,23, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Publication No. US 2003/0066254 A1 to DeBlock.

Claim 18:

DeBlock teaches a skylight system comprising:

A light tube (16, Fig.1) comprising a top and a bottom;

A dome (20, Fig.3) disposed at and sealed (Page 1, paragraph 18, lines 1-4) at said top of said light tube;

A diffuser (14, Fig.1) disposed at said bottom of said light tube;

DeBlock does not teach a diffuser sealed at said bottom of said light tube, said combination of said light tube, said top dome and said bottom diffuser permanently sealed.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have sealed the skylight system on both ends where the openings exist in order to keep out bugs and/or dust

Claim 22,23, and 28:

DeBlock teaches the skylight system of claim 18 (above) wherein said bottom diffuser comprises complete diffusion (Page 1, paragraph 16, lines 4-7) on its interior per claim 22, wherein said bottom diffuser comprises a prismatic diffuser (Page 1, paragraph 16, line 5), and wherein said light tube further comprises a reflective interior (Page 2, paragraph 24, lines 1-3).

Claims 19,20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Publication No. US 2003/0066254 A1 to DeBlock in view of USPN 5,983,581 to DeBlock et al.

Claim 19,20,21

DeBlock teaches the skylight system of claim 18 (above), DeBlock does not teach wherein said dome comprises a diffused dome per claim 19, wherein said dome comprises a completely diffused dome on its interior per claim 20, or wherein said diffused dome comprises a prismatic diffuser per claim 21. DeBlock et al. teaches wherein said dome comprises a diffused dome (Column 4, lines 25-35) per claim 19, wherein said dome comprises a completely diffused dome (Column 4, lines 25-35) on its interior per claim 20, or wherein said diffused dome comprises a prismatic diffuser (Column 3, lines 38-39) per claim 21.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have created a top dome out of a material that would cause the dome to completely diffuse light into the tube, directing the light down the tube. It would also be obvious to include a prismatic diffuser, which scatters the light into the tube at angles causing the light to continue down the light tube. Using a diffuser is an idea well known in the art of skylights and lights in general; therefore substituting the transparent top dome with a translucent/prismatic top dome would have been obvious to enhance the light collecting characteristics.

Claims 24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Publication No. US 2003/0066254 A1 to DeBlock in view of USPN 5,596,848 to Lynch.

Claim 24,26:

DeBlock teaches the skylight system of claim 18 (above), but does not teach wherein said top dome comprises a notch system and said light tube is disposed within said notch system per claim 24 or wherein the notch system further comprises a gasket per claim 26. Lynch teaches wherein said top dome comprises a notch system (30,37, Fig.4) and said light tube is disposed within said notch system per claim 24 or wherein the notch system further comprises a gasket (36, Fig.6) per claim 26.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a notch system on the bottom of the dome, which mates with the top of the tapered tube and creates a more secure connection and seal between the two. It is also obvious to include a gasket in this notch system to seal the opening between the dome and the tube. The use of mating edges, such as a notch and a lip, as well as gasket to seal the mating edges are two extremely well known practices.

Claims 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Publication No. US 2003/0066254 A1 to DeBlock in view of USPN 5,896,713 to Chao et al.

Claim 25,27

DeBlock teaches the skylight system of claim 18 (above), but does not teach wherein said bottom diffuser comprises a notch system and said light tube is disposed within said notch system per claim 25 or wherein the notch system further comprises a gasket per claim 27. Chao et al. teaches wherein said top dome comprises a notch system (26, Fig.5) and said light tube is disposed within said notch system per claim 25 or wherein the notch system further comprises a gasket (94, Fig.5) per claim 27.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a notch system on the top of the bottom diffuser, which mates with the bottom of the tapered tube and creates a more secure connection and seal between the two. It is also obvious to include a gasket in this notch system to seal the opening between the bottom diffuser and the tube. The use of mating edges, such as a notch and a lip, as well as gasket to seal the mating edges are two extremely well known practices.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Publication No. US 2003/0066254 A1 to DeBlock in view of USPN 6,604,329 B2 to Hoy et al.

Claim 29:

DeBlock teaches the skylight system of claim 18 (above), but does not teach wherein a back of said top of said light tube is higher than a front of said top of said light tube. Hoy et al. teaches wherein a back of said top of said light tube is higher than a front of said top of said light tube (Fig.1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have created a light tube in which the back of the tube is higher than the front of the tube causing the tube to form to the shape of a slant roof. Also a slant tube is known to collect more light at a desired angle to direct the light down the tube. The idea of the shape of the tube is well known and is merely a design choice.

Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Publication No. US 2003/0079422 A1 to Bracale.

Claim 30:

Bracale teaches the skylight comprising a light tube, a bottom diffuser, and a top dome (above), Bracale does not teach cutting a hole in the roof and lowering the skylight system through the hole in the roof.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to install the skylight system in the manner which is presented in claim 30. It is extremely well known and obvious to known in order to have a skylight, one must cut a hole in the roof, which will accommodate for the light tube. It is also extremely obvious to lower the tube into the hole in order to place the tube through the roof. Further is very obvious to attach the dome and the diffuser to the light tube in order to complete the light tube assembly. This method of assembling the skylight system is notoriously well known.

Claim 31:

Bracale teaches the method of claim 30 (above) as well as the tapered tube, Bracale does not teach lowering the tapered tube through a hole until the roof stops the tapered light tube.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to lower the tapered tube through the hole just like in claim 30. It would have also been obvious to create a hole a certain size smaller than the tapered tube in order to create a friction fit when the tube is lowered into the hole.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Publication No. US 2003/0079422 A1 to Bracale in view of Publication No. US 2003/0066254 A1 to DeBlock.

Claim 32:

Bracale teaches the method of claim 30, Bracale does not teach wherein the step of disposing a diffuser to the light tube comprises permanently sealing the diffuser to the light tube; and wherein the step of disposing a dome atop the light tube comprises permanently sealing the dome atop the light tube; resulting in a permanently sealed skylight system. DeBlock teaches wherein the step of disposing a dome atop the light tube comprises permanently sealing (Page 1, paragraph 18, lines 1-4) the dome atop the light tube. DeBlock does not teach wherein the step of disposing a diffuser to the light tube comprises permanently sealing the diffuser to the light tube; resulting in a permanently sealed skylight system.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have sealed the skylight system on both ends where the openings exist in order to keep out bugs and/or dust. In order to have a sealed skylight system, it is extremely obvious that one must take the step to actually seal the skylight system.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Publication No. US 2003/0079422 A1 to Bracale in view of USPN 5,596,848 to Lynch.

Claim 33:

Bracale teaches the method of claim 30 (above), but he does not teach wherein the step of disposing the dome atop the light tube comprises providing a dome with a notch system and disposing the light tube with the notch system. Lynch teaches wherein said top dome comprises a notch system (30,37, Fig.4) and said tapered light tube is disposed within said notch system.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a notch system on the bottom of the dome, which mated with the top of the tapered tube, creating a more secure connection and seal between the two. It is also obvious to take the step of disposing the tube within the notch system in order to secure the connection. The use of mating edges, such as a notch and a lip, as well as gasket to seal the mating edges are two extremely well known practices.

Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Publication No. US 2003/0079422 A1 to Bracale in view of USPN 5,896,713 to Chao et al.

Claim 34:

Bracale teaches the method of claim 30 (above), Bracale does not teach wherein the step of disposing the diffuser at the bottom of the light tube comprises providing a diffuser with a notch system

and disposing the light tube within the notch system. Chao et al. teaches wherein said top dome comprises a notch system (26,Fig.5) and said tapered light tube is disposed within said notch system.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a notch system on the bottom of the dome, which mated with the top of the tapered tube, creating a more secure connection and seal between the two. It is also obvious to take the step of disposing the tube within the notch system in order to secure the connection. The use of mating edges, such as a notch and a lip, as well as gasket to seal the mating edges are two extremely well known practices.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan D. Kwiecinski whose telephone number is (571)272-5160. The examiner can normally be reached on 9 am - 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Naoko Slack can be reached on (571)272-6848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RDK

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